

Product datasheet

Specifications



servo motor BCH, no oil seal, w key,
20-bit encoder, w/o brake-straight
con

BCH1803M12A1C

⚠ Discontinued on: Dec 31, 2018 AD

⚠ End-of-service on: Dec 15, 2025 AD

⚠ Discontinued

Main

Range compatibility	Lexium 23 Plus
Device short name	BCH
Product or component type	Servo motor

Complementary

Maximum mechanical speed	3000 rpm
[Us] rated supply voltage	220 V
Network number of phases	Three phase
Continuous stall current	32.5 A
Continuous power	3.5 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft length	73 mm
Feedback type	20 bits incremental encoder
Holding brake	Without
Mounting support	Asian standard flange
Motor flange size	180 mm
Torque constant	0.88 N.m/A
Back emf constant	32 V/krpm at 20 °C
Rotor inertia	77.75 kg.cm²
Stator resistance	0.032 Ohm at 20 °C
Stator inductance	0.89 mH at 20 °C
Stator electrical time constant	27.8 ms at 20 °C
Maximum radial force Fr	1470 N
Maximum axial force Fa	490 N
Brake pull-in power	20.4 W
Type of cooling	Natural convection
Number of motor stacks	3
Centring collar diameter	114.3 mm
Centring collar depth	4 mm

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Number of mounting holes	4
Mounting holes diameter	13.5 mm
Circle diameter of the mounting holes	200 mm
Distance shaft shoulder-flange	73 mm
Net weight	23.8 kg

Environment

IP degree of protection	IP40
Ambient air temperature for operation	0...40 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	37.0 cm
Package 1 Width	26.5 cm
Package 1 Length	58.5 cm
Package 1 Weight	23.782 kg
Unit Type of Package 2	S06
Number of Units in Package 2	2
Package 2 Height	73.5 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	60.564 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained](#) >

[How we assess product sustainability](#) >



Environmental footprint

Environmental Disclosure

[Product Environmental Profile](#)

Use Longer



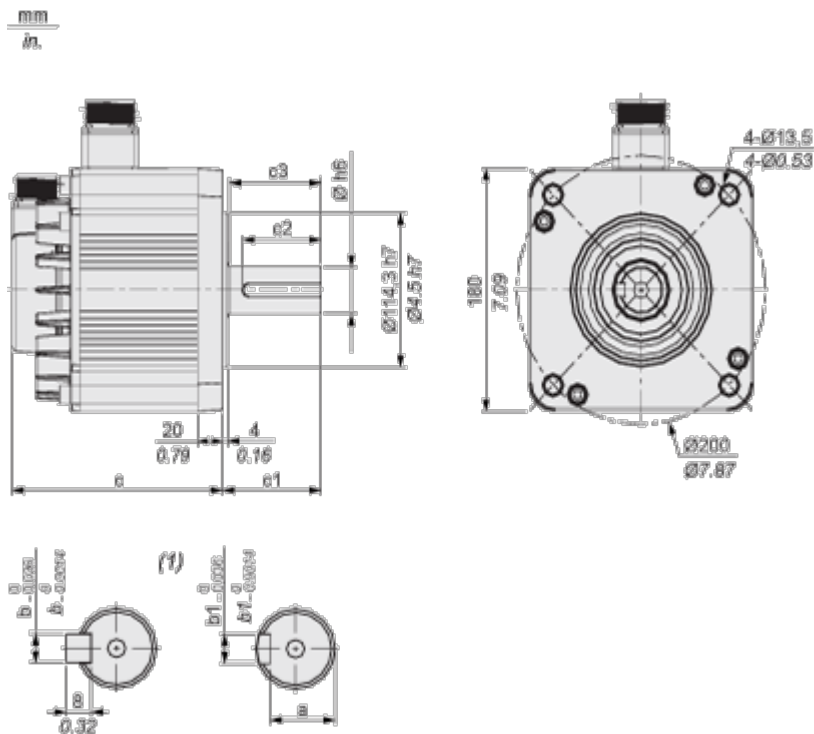
Lifetime extension

Repair

No

Dimensions Drawings

Dimensions



(1) Shaft end, keyed slot (optional)

Dimensions in mm

Ø	a	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
35	30	10	10	235.3	279.3	79	63	73

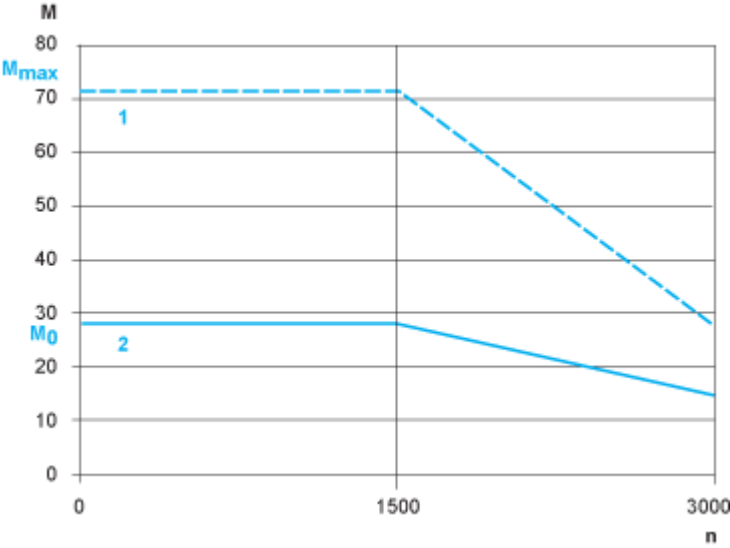
Dimensions in in.

Ø	a	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
1.38	1.18	0.39	0.39	9.26	11.00	3.11	2.48	2.87

Performance Curves

Torque/Speed Curves with 220 V Three Phase Supply Voltage

Servo Motor with LXM23•U45M3X Servo Drive



M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque